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10/541,799	04/04/2006	Michael Anthony Barrett	M03B141	4269
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The BOC Group, Inc. 575 MOUNTAIN AVENUE MURRAY HILL, NJ 07974-2082				
EXAMINER				
NIESZ, JASON KAROL				
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3751				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/541,799

Applicant(s)

BARRETT, MICHAEL ANTHONY

Examiner

JASON K. NIESZ

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3, 4, 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shipachev et al. (US Patent 6,378,570 B1) in view of Knopf (GB 958512).

In Re claim 1 with reference to Figure 3 Shipachev discloses a method of filling a gas capsule comprising a hollow body portion (1), a cap (5), a stem (2) and a filling orifice (6). Shipachev discloses a method of providing within the capsule prior to the assembly of the body portion and the cap portion a stopper member (3). Shipachev further discloses the step of filling the capsule with gas under pressure, causing the stopper member to adopt a position between the body of the capsule and the filling orifice, and releasing the pressure to force the stopper member into gas tight engagement with the stem portion (2) of the bottle. Shipachev further discloses a stopper member formed as a ball of resilient material (Column 2, lines 39-40). In Figure 2 Shipachev discloses a method comprising leaving a space between the stopper member (3) and the filling orifice (6).

Shipachev doesn't disclose a portion of the cap member defining a passage to the orifice of the capsule.

In Figure 2 Knopf discloses a cap portion (1) defining a passage to the orifice of a capsule.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the cap portion from the Knopf reference in place of the stem portion from the Shipachev reference, in order to allow the manufacturer to select from different orifice sizes while using a standard capsule. Furthermore, it would have been obvious to use only the cap body 1 from Knopf and not the catch element (9) in the combined method as the inclusion of the catch element would prevent the Shipachev stopper, which moves freely within the capsule (see Figure 1) from seating properly during sealing.

The examiner notes that the use of the cap from Knopf during the method from Shipachev necessarily results in the stopper member from Shipachev being held by gas pressure in a gas tight arrangement with the cap portion as the ball is forced into the bore and trapped in fluid tight arrangement with the constricted portion.

In Re claim 3 in Figure 2 Knopf discloses a cap portion comprising a bore formed with a first part of wider diameter (6, 4) and a second part of narrower diameter (2) and a shoulder (7) joining the two parts and forming a seating arrangement for a stopper member.

In Re claim 4 in Figure 2 Knopf discloses a tapered portion of a bore (6) extending between wider and narrower parts. It should be noted that the cap from Knopf with the Shipachev method results in the resilient ball being forced along said tapered

part and compressed to a point at which it becomes trapped within the bore. (See Figure 2 in Knopf).

In Re claim 6 Shipachev discloses the claimed invention except for forming said ball of silicone rubber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use silicone rubber to form the ball, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

In Re claim 11 Shipachev discloses the step of orienting said capsule with the filling orifice in a downward position in order to cause said stopper member to obstruct the path of gas (Column 3, lines 24-30). The examiner notes that although gas pressure is listed as the means for propelling the ball into the orifice, gravity is obviously also influencing it.

2. Claims 5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shipachev in view of Knopf in further view of Garrett (US Patent 7,013,617 B2).

In Re claim 5 Shipachev in view of Knopf as applied to claim 1 above discloses all the limitations, but doesn't disclose the use of an aluminum body portion for the capsule.

Garrett discloses a method of filling and sealing an aluminum capsule (Column 3, line 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use aluminum to manufacture the Shipachev gas

capsule, in order to take benefit from the well known advantages of aluminum (light weight, easy machining).

In Re claims 8 and 9 Shipachev in view of Knopf as applied to claim 1 above discloses all the limitations, but doesn't disclose the method of crimping the stem multiple times and then welding the orifice shut.

With reference to Figures 1-3 Garrett discloses a method of sealing a capsule in which a crimp is made in the stem of a capsule at a location distant from the filling opening followed by a second crimp at the location of the filling orifice followed by a weld at the second crimp. Garrett further discloses making the weld with a laser (Column 3, lines 15-35). In the background of the invention Garrett discloses the use of metal jaws to perform a crimping action (Column 1, lines 54 and 55). Garrett further discloses the step of removing a portion of said jaws in order to free a portion of passageway to be welded while at the same time leaving the remaining portion of said jaws attached to hold the piece in place (Column 1, lines 47-67, Column 2, lines 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Shipachev method by performing the crimping and welding operation as shown in Garrett, in order to provide a more secure seal.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shipachev in view of Knopf in further view of Chusserath et al. (US Patent 5,634,500).

In Re claim 10 Shipachev in view of Knopf as applied to claim 1 above discloses all the limitations but doesn't disclose the step of flushing the capsule with a gas then evacuating it prior to filling.

Chusserath discloses a method for bottling a liquid comprising purging the container with an inert gas which is then evacuated prior to filling (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Shipachev reference by adding the flush and evacuation step from Chusserath, in order to prevent atmospheric contaminants from contaminating the fill gas. Furthermore, it would have been obvious to hold the capsule in an upright position during this step, in order to prevent the stopper member from lodging in the stem during evacuation.

Allowable Subject Matter

4. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 11/18/2008 have been fully considered but they are not persuasive. Claim 1 as amended merely specifies that a space is left between the stopper member and the filling orifice. It can be clearly seen in Figure 2 of Shipachev that when a resilient ball (3) is forced in gas tight arrangement with the mouth of the bottle (2) a space is left between the ball and the orifice (6). In Re the applicant's arguments regarding the rejection of claims 5 it would have been within the scope of

ordinary skill in the art to select a known material, (such as aluminum) for its suitability in the invention, especially if such a material was clearly disclosed in another reference in the same art. In Re the applicant's arguments regarding claims 8 and 9 the Garret welding method, (applied with or without the cap from Shipachev) would provide a more secure seal than just the capping step from the Shipachev method. In Re the applicant's arguments regarding claim 10 the Chusserath reference lies within the container filling art and represents knowledge which one of ordinary skill in the art would have access too. The step of purging a container and evacuating it to assure a cleaner fill is commonly known as advantageous in any container filling operation.

6. Applicant's arguments, filed 11/18/2008, with respect to claim 7 have been fully considered and are persuasive. The rejection of claim 7 has been withdrawn.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. NIESZ whose telephone number is (571)270-3920. The examiner can normally be reached on mon-fri 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason K Niesz
Examiner
Art Unit 3751

/Timothy L Maust/
for Gregory Huson, SPE of Art Unit 3751